

We have seen in Canada the successive discovery and development of power from several sources - from the early use of the water wheel located on the banks of fast-flowing rivers to drive the crude machinery of the early saw mills, flour mills and textile plants; to the use of steam power derived from coal; to the giant hydro-electric plants of today, and to the many uses of oil as a prime source of power.

If I may digress for a moment, my mention of giant hydro-electric plants reminds me of the new St. Lawrence Power and Seaway Development. Between Iroquois and Cornwall the fact of nature is being changed on a grand scale, including a tremendous dam at Iroquois to control the level of Lake Ontario and an International Power Plant at Cornwall designed to generate 1,640,000 kw by 1960. In the process some 20,000 acres of land will be flooded, necessitating the removal of several entire villages to relocate 6,500 people on high ground in newly-built communities. Long stretches of main highways and rail lines must be moved -- even cemeteries cannot be left to the flood. This project is a modern saga of the historic St. Lawrence Valley on a scale unlikely to occur again in our lifetime. If you have not already done so, I can strongly recommend a visit to the site, from which I am sure you and your children will return with a sense of pride in this great Canadian achievement. But you will have to hurry - the flooding is scheduled to take place during the first four days of July.

Beyond the sources of power I have mentioned, we have the promise of nuclear power, both by fission and by fusion, now in its infancy.

As applied to defence problems, we already have nuclear propulsion available for ships, which may well change and extend the strategic role of the Navy.

Last December, I was privileged to go for a short cruise in the USS SEA WOLF, the second nuclear-powered submarine built for the US Navy. The relative simplicity and reliability, coupled with high speed, of this new source of power was most impressive. In the reactor room, lined with instrument panels, control buttons, switches, meters, gauges and flashing lights, there was a brass plate mounted on the head of the reactor itself which read:

"Property of U.S. Government - DO NOT OPERATE  
BEFORE READING INSTRUCTIONS".

This did seem like a slight over-simplification.